Go with the flow:
discovering new workflows in Alma

Melissa Parent
Library Officer
RMIT University Library
melissa.parent@rmit.edu.au

Lesa Maclean
Library Officer
RMIT University Library
lesa.maclean@rmit.edu.au

Abstract:
This paper discusses the implementation of the Ex Libris product Alma at the RMIT University Library in Melbourne, Australia. Alma is a cloud-based library services platform that rewrites the design of client-based library management systems, which until recently have been prevalent in technical services. Moving into the cloud has presented challenges, new opportunities for innovation and a vision for the future of library data. This paper considers these challenges and innovations and their impact on workflows and staff skill sets now and in the future.
Introduction

Effectively managing library data and library workflows has become highly complicated in the digital age, especially with the rise of electronic resources (Collins 2009, p.261). Library technology has kept pace with numerous offerings that can help us serve the needs of our clients and institutions, and any one library may use a combination of tools. Until making the decision to implement Alma, RMIT University Library used several Ex Libris products: the Voyager Library Management System (LMS) running on internal servers, the Primo discovery layer, the SFX OpenURL link resolver, the Verde electronic resource management system, and MetaLib (Ex Libris Group 2013a). The Library also administers a learning repository and research repository. In short, over time the Library had acquired a myriad of disparate systems in order to manage effectively the acquisition and provision of library resources, while meeting the challenges presented from the changing digital environment. Using a number of systems provided RMIT with several problems, including silos of knowledge with individual staff, and issues with interoperability between systems that added significantly to the complexity of workflows. The decision was made by Library management to implement the Alma unified resource management system.

Alma is a cloud-based library services platform, offered by Ex Libris as a next generation library services framework and a tool for unified resource management. Carl Grant (2012), Executive Advisor to the Dean of Libraries at Virginia Tech University and author of the blog ‘Thoughts from Carl Grant’, describes cloud-based library services platforms as “…using a remotely hosted machine instead of a locally installed machine and the company hosting that machine takes on the responsibility for maintaining the system” and a cloud computing system having “…on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service”. Such cloud-based library services platforms are chiefly different from traditional library management systems because they are not designed solely around the management of hardcopy print materials (Grant 2012, p.5).

Since the implementation of Alma, it has been observed that there has been a positive impact on workflows and efficiency. There are some areas in which improvements have not yet been achieved, but there is great potential for innovation in these areas. Additionally, staff have gained new skills and technological competencies and increased collaboration between teams has been noted. This paper discusses the impact of implementing a cloud-based services platform from a technical services perspective.

Preparation

In the technical services area, Alma facilitates seamless management of both print and electronic resources and provides a collaborative metadata management environment through its “community zone”, which every library using Alma can access. RMIT University Library, along with approximately 60 libraries worldwide, is an early adopter of Alma through the Alma early adopter program (Ex Libris Group 2012a). Going live in May 2013, RMIT was the second Australian institution to adopt Alma and the twelfth in the world. Early adopters are subject to frequent system updates and changes as Ex Libris continues to develop the product.
The University recognised that preparing for Alma implementation would be a challenge. To meet the challenge presented by Alma implementation, a cross-unit working group was formed to report directly to Library Executive. Membership of this group consisted of representatives from all units of the Library: reference, loans, and technical services. The reference and loan members of the group focused on circulation and patron service operations and communicated their findings and desires to the technical services members of the working group. Technical services staff responded to circulation and patron services requirements, and also used Alma as an opportunity to tackle workflows in their area.

For some time, staff and management in technical services, called Library Resources and Access (LR&A) at RMIT University, had felt that workflows needed improvement. Workflows had developed partly in response to the limitations of the technologies used and the lack of interoperability between systems, rather than being guided by efficiency and innovation. Additionally, separate administration of each system component of Voyager, SFX and Verde, had created skill set silos and disparities in overall system knowledge. In this environment, it had become difficult for staff to recognise their efforts and effects on the system and team as a whole.

Alma implementation became an opportunity to address workflows, skill sets, and the staff-task connection. At the same time, it was recognised that workflows and staff would need to be adaptable and flexible. As a newly developed system, Alma would experience frequent system changes and updates from 2013 to 2014, with updates expected to reduce in frequency into 2015. To prepare for the mid-2013 implementation, existing workflows were documented by a newly appointed staff member. Workflows were examined in detail to identify gaps in staff knowledge and connections between processes and to determine what the technical services team wanted to avoid replicating. Critical processes were mapped out in Alma step-by-step and new workflows created. In the final weeks leading up to implementation, staff attended hands-on training sessions and were actively encouraged to explore the Library’s Alma testing environment.

**The data model**

Upon Alma’s launch at RMIT University on the 12th May 2013, it became evident that designing workflows for Alma was not as simple as replicating tasks from Voyager to Alma. Alma is structured very differently from a traditional LMS. This arises from the fact that Alma is not an LMS, but a cloud-based service designed for universal resource management and collaborative metadata. The data model underpinning it is complex, and although documented by Ex Libris in its Resource Management Guide (Ex Libris Group 2013b), its complexity, coupled with the stark differences from the familiar LMS model, meant that it took technical services staff some time to observe Alma operations and understand how the components of it came together in any one workflow.

The Alma data model has two primary divisions. The first, diagrammed below in Figure 1, is a vertical division between the institution zone and the community zone. The institution zone is the Library’s portion of the Alma cloud. It is the area in Alma that holds the Library’s individual Alma configuration and local metadata, which
includes bibliographic and holding records (for print resources) and inventory and services information (for electronic resources).

The community zone is the shared portion of the Alma cloud. It is administered by Ex Libris and is populated chiefly by authority data and metadata for electronic resources. Metadata for print resources is expected to be added to the community zone in 2015. Although all Alma libraries have ready access to the community zone from the same search interface that is used to search the local institutional zone, as at December 2013, only Ex Libris and vendors participating in the central knowledge base can contribute data to the community zone.

*Figure 1. The Alma institution zone & community zone*

<table>
<thead>
<tr>
<th>Institution Zone</th>
<th>Community Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second primary division is a horizontal division between the Metadata Management System (MMS) and Inventory, and is briefly diagrammed below in Figure 2. The institution zone and community zone each contain its own MMS. The Institutional MMS includes configurations settings, which include import profiles, match and merge routines, Z39.50 behaviour, vendor information, and account structure. The MMS is also where MARC or descriptive metadata records reside. The inventory section contains print and electronic inventory, and is further subdivided into three levels: top, middle, and bottom.

*Figure 2. The Alma Metadata Management System and Inventory (Brief)*

<table>
<thead>
<tr>
<th>MMS</th>
<th>MMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVENTORY</td>
<td>INVENTORY</td>
</tr>
<tr>
<td>Top</td>
<td>Top</td>
</tr>
<tr>
<td>Middle</td>
<td>Middle</td>
</tr>
<tr>
<td>Bottom</td>
<td>Bottom</td>
</tr>
</tbody>
</table>

The top inventory level consists of the intellectual entity (IE). The IE is defined in Ex Libris documentation as a transparent entity that points from the inventory level to a MMS (Ex Libris 2013b, p. 168). Recalling that the MMS is where bibliographic records are found, the IE therefore connects inventory with its bibliographic description. The middle level of inventory is a grouping level. At this level resides information about holdings for print items, and information about services for electronic items, or the interfaces, packages, package services, and licenses associated with electronic items. The bottom level of inventory is the circulation or access level. Here resides information about physical items, such as item barcodes and material types, and about electronic portfolios—local coverage, whether or not they are active, and proxy access for institutionally authenticated users. A more complete diagram of the Alma model and the placement of each entity within the MMS and inventory levels are shown below in Figure 3.
The model, once understood, went some way toward explaining the complexity of some Alma operations. However, the separation of descriptive metadata from inventory, with the description belonging to the MMS and inventory belonging to the middle or bottom level of the inventory layer, did require some conceptual adjustment. Likewise, the connection between the institution zone and community zone has impacted how workflows can be designed and understood, as will be discussed in later sections.

*Figure 3. The Alma Metadata Management System and Inventory (Full)*

<table>
<thead>
<tr>
<th>MMS</th>
<th>MMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>Vendors &amp; Accounts</td>
</tr>
<tr>
<td>MARC Records</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INVENTORY</th>
<th>INVENTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top level</strong></td>
<td><strong>Top level</strong></td>
</tr>
<tr>
<td>Intellectual Entity</td>
<td>Intellectual Entity</td>
</tr>
<tr>
<td>(points from Inventory to MMS)</td>
<td>(points from Inventory to MMS)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Middle Level</th>
<th>Middle Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Holdings</strong></td>
<td><strong>Interfaces</strong></td>
</tr>
<tr>
<td>(groups holdings for print resources; groups services for electronic resources)</td>
<td>Packages &amp; Licences</td>
</tr>
<tr>
<td></td>
<td>Package Services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom Level</th>
<th>Bottom Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items</strong></td>
<td><strong>Portfolios</strong></td>
</tr>
<tr>
<td>(circulation &amp; access)</td>
<td>with specific coverage &amp; links</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Workflows**

A workflow is a collection of processes required to achieve a goal. An organisation’s workflows are made up of a group of processes it needs to achieve, the staff and/or resources available to execute those processes, and the connections that occur between them. In today’s complex data environment, it is vital that workflows are efficient and streamlined. For LR&A, workflows prior to Alma were often dictated by the functionality of Voyager, rather than what the LR&A team wanted to achieve. Staff had to log into different modules for cataloguing and acquisitions, often navigating between them to execute their work. Moreover, in general these workflows were not well documented.
For single print and electronic materials, the workflows for the selection and cataloguing of resources were documented by a new team member over a three-month period, through the use of personal interactions, emails, and existing procedural analysis. This process highlighted inconsistencies with how tasks were carried out, a lack of connection between tasks, and a lack of understanding of how one person's task affects those of another person. Most importantly, not only were tasks identified as no longer necessary and subsequently discontinued, but processes were also streamlined to improve efficiencies. However, with such a short-time period before the implementation of Alma, it was considered a more valuable use of time not to focus too much on modifying existing workflows, and instead focus on the new workflows in Alma.

**Ordering workflows**

Prior to Alma, like most academic libraries, one of the routine workflows for LR&A was the ordering of print and electronic monographs from YBP Library Services. This involved Liaison Librarians selecting items on YBP's online resource, GOBI3. Technical services staff then processed these selections daily by importing the GOBI files into Voyager. Finally, purchase orders were manually processed and then sent via electronic data interchange (EDI) to YBP.

Alma offers the ability to automate the ordering process. However, when the system first went live in May 2013, acquisitions automation was not fully operational at RMIT University, and orders had to be processed one by one and in a more manual fashion than staff were used to. The ordering of physical items was taking longer than it traditionally did in Voyager, while the ordering of electronic items was temporarily halted. Alma’s operational effects on acquisitions processes were chiefly due to the complexity of creating import profiles within the then unfamiliar Alma environment.

Import profiles control the match, merge, and Embedded Order Data (EOD) behaviour of individual records within a file. Determining which match and merge combination best met the needs of the library required significant testing and observation of processes. Testing was made more challenging by Alma search behaviour, which requires users to understand and manage how the division between MMS and inventory manifests in search results. Search indexes relate to either the MMS level or the inventory level, but not both. One search may yield very different results depending on the index used.

Mapping EOD to purchase order lines involved consideration of fund and account structure and new conception of vendor roles. In the process of creating import profiles, it also became clear that Alma is an inventory-driven system rather than a ‘bib-centric’ system as in a traditional LMS, where the bibliographic record is the dominant entity connecting acquisitions information and inventory. In inventory-driven Alma, acquisitions information is connected to inventory, rather than the bibliographic record. Working within an inventory-driven system required a significant conceptual shift when rationalizing and predicting Alma behaviour.

Import profiles for eBooks took longer to create than for print books due to the relationship between the institution zone and community zone, and the Library’s
desire to use the community zone for resource management and access. The community zone can be used for universal resource management, in that resources that are activated in the community zone are managed by Ex Libris. Activation in the community zone means that institutional users can access the inventory and a read-only copy of the inventory’s community zone bibliographic record is created in the institutional zone. The read-only copy of the community zone record cannot be edited, and community zone records at this time tend to be of poor quality. Fortunately, import profiles for electronic items can be used to overlay or merge read-only community zone records that exist in the institution zone. The connection between the inventory and the community zone remains so that the resource is managed by Ex Libris through the community zone, but the inventory is uncoupled from the community MMS and associated with the institutional MMS instead.

Although import profiles took some time to create and staff in the meantime were required to create manual orders for physical items (and no orders for electronic items), acquisitions automation is now almost fully operational for both print and electronic resources. This means that when an EOD file is imported into Alma using an import profile, Alma automatically creates purchase order lines for each item present in the imported file. Each purchase order line is validated to establish if there is something about an individual order that requires physical intervention, based on the order validation rules created in institutional configuration. If there is nothing irregular about the purchase order line, it is automatically packaged into a purchase order and then automatically approved and sent to the vendor for processing.

As of December 2013, Alma has effectively automated much of the repetitive ordering process through import profiles that use EOD. For items that are not ordered on profile that continue to require manual orders, Alma ordering templates have removed more monotonous tasks of entering ordering details like price, currency, and fund information. Acquisitions automation has left staff with the more complex problem areas to deal with, and provided RMIT LR&A staff with more stimulating work to concentrate on. Whilst staffing levels and roles have not changed, workloads have been lightened by this process, especially when compared to previous Voyager workflows. When comparing the two images in the appendix below, we can immediately see a reduction in the number of steps staff have to execute. In the Voyager workflows diagram, it can be seen that staff have to execute eighteen steps, whereas in the new Alma workflow, staff only have to execute seven.

Workflows for managing eBooks acquired via Patron Drive Acquisition (PDA) are not yet operational in Alma, as at December 2013. However, it is expected that Alma will make it easier to manage PDA through a separate area in the interface where records can be added, edited, duplicated, terminated and cancelled.

Cataloguing workflows
While the streamlining in Alma for cataloguing operations has been less noticeable than with acquisitions, it still has exceptional benefits built into its system when looking at the tasks involved in cataloguing. The first notable feature of Alma cataloguing is that staff no longer have to log into and navigate between two different LMS modules. The acquisitions and cataloguing areas of Alma exist in one area requiring a single log-in, which allows workflows to be executed in one continuous
flow. Alma has created a minor additional step for cataloguers in their workflows. In Voyager, once a metadata record has been located, it can be edited immediately. However, in Alma, there is the additional step of having to place the record into editing mode before alteration of that record can begin.

In Alma, the cataloguing area where bibliographic data is created and edited is called the metadata editor. The metadata editor supplies a built-in connection to the Library of Congress MARC Standards. This connection means that staff no longer have to open a separate internet window and navigate to the corresponding section in the standards to check if they have correctly coded a MARC tag. Now cataloguers need only to place the computer cursor within a MARC tag in the metadata editor and then click on a ‘get info’ button below the bibliographic record. The corresponding section of the MARC standards then appears. This will undoubtedly have an impact on the quality and flow of data.

The metadata editor also connects to controlled vocabularies. Library of Congress Subject and Name Authorities are connected to the metadata editor via the community zone, which means that authorities do not need to be locally updated. When cataloguers begin typing a subject or name, Alma provides an authoritative drop down list for the cataloguer to choose from. This reduces the need to search for authorities outside of the system, and provides better consistency within these data fields. Data consistency is further enhanced in the metadata editor through locally defined controlled vocabulary for Resource Description and Access (RDA) data elements in MARC 336, 337, and 338 tags.

The metadata editor allows for the assigning of records from one person to another and the ability to attach non-public notes to records. This functionality has vast possibilities. For instance, this functionality was utilised heavily when LR&A staff were learning how to apply the new RDA standards. Part of RDA training included updating an AACR2 record and then assigning it to a reviewer for feedback. The reviewer would receive the record in her/his metadata editor, bolded to differentiate it from other records. The reviewer would then review the record. Any feedback would be entered into a notes field when the reviewer assigned the record back to the cataloguer. This functionality reduced the use of paper notes and confusion over who needed to be provided with feedback. Reviewers were often reviewing several people’s work simultaneously and Alma tracks who assigned which record to whom.

Additionally, the metadata editor has the ability to lock down and hold a metadata record until a cataloguer has finished editing it. This has proven very useful whenever the system times out due to inactivity by the cataloguer. This is because when a cataloguer logs back in, the record is still waiting in her/his metadata editor area. The metadata editor also supplies a built-in validity checker, which alerts cataloguers to any data that may be incorrect; for example, if the first indicator is missing in a MARC tag or is coded incorrectly. Finally, when deleting an item from the system, Alma automates the process and prompts staff to delete the holding record as well if it is the last item at that location. This reduces the need to manually delete a holding and reduce the error rate for leaving empty holdings.
Normalisation Rules
Prior to Alma implementation, data editing and database maintenance tasks were performed using third-party software. Editing single records within Voyager involved Macro Express software that was prone to execution glitches. MarcEdit software (Reese, 2013) was used to edit files before import to Voyager, and database maintenance tasks used a combination of Voyager add-on utilities and MarcEdit. Since implementing Alma, data editing and database maintenance tasks are performed using a combination of MarcEdit and Alma normalisation rules.

Alma allows users to create their own MARC record normalisation processes, using a defined syntax and set of commands. Each process is called a normalisation rule. A rule may be a single command to add, change, or delete a record element, or it may be a series of add/change/delete commands executed one after the other. Rules can be written to execute only if certain conditions are met or to execute unconditionally. Further, each command within a rule can be set to execute conditionally. Normalisation rules can be applied as part of an import profile (including the z39.50 import profile), or manually executed by staff working on individual records in the metadata editor. A normalisation rule may also be applied to a set of records within the repository.

Editing and maintenance tasks have become simpler to execute under Alma, where normalisation rules have replaced Macro Express for single-record editing. Applying normalisation rules to z39.50 import profiles has eliminated the need for many single-record edits as individual records can be automatically edited upon import. Normalisation rules have not however supplanted the use of MarcEdit, and MarcEdit continues to be used for some data editing and manipulation. One limitation of normalisation rules is their lack of support for regular expressions, which enable powerful find and replace editing. MarcEdit must be used to edit data whenever regular expressions are required. Another limitation of normalisation rules is their handling of punctuation. As of November 2013 rules that seek to use, add, or remove punctuation will execute but will ignore punctuation, unless the punctuation is within the text of a subfield and not at the end of the subfield. The regular expression and punctuation limitations will, it is hoped, be addressed in future Alma development by the vendor. In the meantime, these limitations are offset by the conditional logic that normalisation rules comprehensively support.

Managing electronic resources
When electronic resources initially appeared in the data ecosystems of libraries, an attempt was made to incorporate these resources into well-established print workflows, and they were at first treated as ‘add-ons’ (Elguindi & Schmidt 2012, p. 52). It soon became clear that:

- Electronic resources came with a host of new entities to manage, such as ‘package service’ and ‘portfolio coverage’.
- Wholly new workflows were required.
- Providing the best access to electronic resources required new technology.
Before implementing Alma, electronic resource management at RMIT University Library centred on the SFX OpenURL link resolver and the Verde electronic resource management tool. SFX contained descriptive and administrative metadata for electronic resources, and played a central role in electronic resource management and access. SFX was both a link resolver, which permitted access to licensed external resources, and a proprietary Central Knowledge Base (CKB) repository for electronic resource entities known as packages and portfolios. A CKB package was defined as a collection of electronic resources associated with a particular interface, and the services available to that package. Services included ‘get full text’, ‘get TOC’ (table of contents), ‘get selected full text’, and ‘get holdings’. A collection of journals from EBSCO Academic Search Complete, for which users could access the full text of all articles, represents a package. A CKB portfolio was a specific title associated with a package, and having specific coverage (availability) and link information. Australian Library Journal, available in full text dating from 2000 via Gale Cengage, is an example of a portfolio. Australian Library Journal, available in full text dating from 2002 via Directory of Open Access Journals is an example of another portfolio.

The SFX data environment was a mixture of CKB-originating data and local data, such as portfolios unattached to a CKB package. Ebooks, despite their growing presence in the collection, were frequent instances of local data. Local resources originated in the Voyager LMS, with linking information attached for the SFX link resolver to act on. As an SFX library, RMIT University benefited from Ex Libris updates to the CKB, and was able to streamline some electronic resource management activities. For packages and portfolios purchased under automatic update terms, any changes in the CKB were reflected in the Library’s local SFX. For other resources, manual administration tasks, such as updating the coverage associated with a particular portfolio were still required.

Verde contained information about vendors, interfaces, licenses, packages, and package services. The Verde data system was where the Library managed the information and localised the workflows needed to select, evaluate, acquire, renew, and cancel electronic resource subscriptions. The Library stored licence and administration information and service usage statistics in Verde, and also used Verde to manage electronic resource trials and record vendor-reported incidents. Verde data was manually created and maintained with limited batch processing capabilities, and was primarily administrative, with few links between Verde data and data residing in the Voyager LMS.

There are many tasks associated with electronic resource management but the most critical tasks for user services centre on access. Can users access a resource that they should be able to access according to the Library’s licensing of that resource? Is a resource that users should not be able to access a discoverable resource (when it should not be)? Is one resource with multiple modes of access expressed as a single resource with multiple access modes attached, or as multiple resources with single access modes attached?

While using a combination of SFX, Verde and Voyager to manage electronic resources, the primary challenge to ensuring easy access for end users was the separation of acquisition data in Voyager and administrative data in Verde from the resources themselves in Voyager or SFX. Providing access and trouble-shooting
access issues required knowledge of all three systems and understanding of what the data in one system meant for the other two. Workflow diagrams for electronic resource management were difficult to create and very complex.

In many ways, Alma has proven an effective solution to electronic resource management. For the first time, all data relating to electronic resources now resides in a single system that allows the relationships between resource acquisition, administration, and description to be expressed explicitly and transparently. With minimal navigation, it is clear to an Alma user that vendors are associated with interfaces, interfaces are associated with packages having license terms and services, and portfolios are associated with packages. From one interface, all data around a single resource and how this data relates to other resources, is clear, easily discoverable, and quickly edited when necessary. Electronic resource management is now far less complex.

At the same time, the Library is faced with a number of data clean up tasks as a result of migrating data from previously separate data environments. For example, when operating Voyager with SFX, the Library loaded eBook records to the Voyager cataloguing module so that eBooks could be discovered in the Voyager OPAC. Many eBooks were also activated in SFX for administrative purposes and for discovery in the Primo discovery layer. eBook data was therefore duplicated when Voyager and SFX data migrated to Alma. In hindsight, LR&A staff could have foreseen and prevented this duplication. Other data clean-up tasks relate to Alma revealing underlying discrepancies in Voyager and Verde data, as connections between such things as licenses and packages or vendors and interfaces were not enforced in the Voyager and Verde data environments. In contrast, such connections are often enforced in Alma, where many operations invoke connections between data entities in order to execute.

**Vision for the future**

RMIT University Library’s experience with implementing Alma has shown that Alma workflows are not static, and that staff cannot get complacent or inflexible. During the Alma implementation, it was clear that staff have had to become and remain flexible due to changing processes. As one of the LR&A managers consistently communicates, “Alma is a moving feast”, meaning updates and changes to the system will be constant, requiring workflows to be consistently updated, additionally requiring staff to be capable of continually acquiring or updating knowledge and applying that knowledge in alignment with organisational procedures. Alma has provided RMIT staff with the opportunity to become flexible learners who are capable of problem solving.

The automation of workflows with Alma means that, in the future, work will be more complex, less routine, and more stimulating. Alma requires staff to adhere to unified workflows, hold an in-depth understanding of the single unified acquisitions and record description workflow, and in-depth knowledge of loading records in Alma. LR&A staff will utilise Alma’s functionality to streamline workflows as much as possible, in order to minimise the amount of manual work required. This will allow
staff to focus on the intellectual work of technical services and enable the development of an innovative work environment.

As a cloud-based system, Alma can be accessed from anywhere library staff can get an Internet connection, so will the future see library staff provided with more flexible working conditions and working from home or in academic portfolio offices? Will it mean that staff will be executing their daily tasks on mobile devices rather than desktop computers? Will Alma, perhaps, eventually automate so much of the technical services workflows that staffing needs will be reduced?

Conclusion
With the proliferation of electronic resources, it has become increasingly difficult for libraries to manage and provide access to the whole of their collections. RMIT University Library’s response to this challenge was to become an early adopter of the Alma cloud-based library services platform, which uses a new conceptual model to provide a unified and collaborative approach to resource management.

For the technical services area of the Library, implementation of Alma was an opportunity to redesign workflows and address perceived gaps in staff skill sets. Although the period immediately after implementation presented some difficulties, workflows have since been revolutionised. Embedded order data has streamlined ordering workflows. Metadata creation and editing have benefited from key features of the metadata editor and the application of normalisation rules. Electronic resources are managed alongside print resources, without being separated from any of the data associated with them.

In adjusting to the new model and new workflows, which frequently shift with Alma’s regular updates, staff have had to demonstrate critical competencies of agility and flexibility in order to perform to a high standard. With more efficient workflows and an agile, flexible staff, it is hoped that RMIT University’s LR&A team will be able to use the full capabilities of Alma. The staff at RMIT University Library are looking forward to the future, with Alma, with greater automation and innovation, and increasingly complex work requiring more intellectual input.
References


Appendix

YBP Ordering workflow on Voyager:

Note: This workflow assumes you have set your defaults in Voyager.

- Click 'New purchase order'.
- In Order section: Select PO type from drop down menu.
- In Location section: Fill in ship to & bill to by choosing from drop down menu.
- Click 'open'.
- Click 'Delete from file after import'.
- From the PO list created, highlight an individual title & click 'Quick Line Item'.
- Fill in necessary details (e.g. price, location) referring to Gobi export email.
- Click 'Save'.
- Repeat until titles on the PO have been done.
- Click 'Approve'.
- Click 'Yes'.
YBP Ordering workflow on Alma:

1. **Export selected records from Goli & save file to your desktop.**
2. **Edit file using MarcEdit.**
3. **In Alma, click the Alma button & select 'Import' under the Acquisitions heading.**
4. **Next to the correct ordering profile account, select 'Actions' & 'Import.'**
5. **Click 'Submit.'**
6. **Click 'Add.'**
7. **Click on the yellow file icon & navigate to the .mrz file previously edited.**

**Note:** Alma will automatically create the POI's and later automatically package them into PO's & send the orders to the Vendor's.